HEATING, VENTILATION, AIR CONDITIONING (HVAC)

HVAC 101 Foundations of HVAC 4 Credit Hours

Prerequisites: CRFT 101

Foundations of HVAC is a practical course combining lecture and hands-on instruction. Topics include: Introduction to HVAC; Trade Math; Copper and Plastic Piping Practices; Soldering and Brazing; Ferrous Metal Pipe Practices; Basic Electricity; Introduction to Cooling; Introduction to Heating; Air Distribution Systems.

Offered: Resident

HVAC 201 Intermediate HVAC 4 Credit Hours

Prerequisites: HVAC 101 and CRFT 101

Intermediate HVAC is a practical course combining lecture and hands-on instruction. Topics include: Commercial Airside Systems; Chimneys, Vents and Flues; Introduction to Hydraulic Systems; Air Quality Equipment; Leak Detection, Evacuation, Recovery and Charging; Alternating Current; Basic Electronics; Introduction to Control Circuit Troubleshooting; Troubleshooting Gas Heating; Troubleshooting Cooling; Heat Pumps; Basic Installation and Maintenance Practices; Sheet Metal Duct Systems; Fiberglass and Flexible Duct Systems.

Offered: Resident

HVAC 301 Advanced HVAC 4 Credit Hours

Prerequisites: HVAC 201 and CRFT 101

Advanced HVAC is a practical course combining lecture and hands-on instruction. Topics include: Refrigerants and Oils; Compressors; Metering Devices; Retail Refrigeration Systems; Commercial Hydraulic Systems; Steam Systems; Planned Maintenance; Water Treatment; Troubleshooting Electronic Controls; Troubleshooting Oil Heating; Troubleshooting Heat Pumps; Troubleshooting Accessories.

Offered: Resident

HVAC 401 Special Topics in HVAC 4 Credit Hours

Prerequisites: HVAC 301 and CRFT 101

Special Topics in HVAC is a practical course combining lecture and hands-on instruction. Topics include: Construction Drawings and Specifications; System Balancing; Indoor Air Quality; Energy Conservation Equipment; Building Management Systems; System Startup and Shutdown; Heating and Cooling System Design; Commercial and Industrial Refrigeration Systems; Alternative Heating and Cooling Systems; Introduction to Supervisory Skills.

Offered: Resident